

It is noted that claims 1-4, 8-10, and 12-13 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Yi, et al in view of the U.S. patent to Kirby.

Claims 1-4, 8-10 and 12-13 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Yi, et al, in view of the U.S. patent application publication to Haridoss, et al.

Claims 5, 11 and 17 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Yi, et al in view of the U.S. patent to Kirby and further in view of the U.S. patent application publication to Menon, et al.

Claims 5, 11 and 17 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Yi, et al in view of the U.S. patent application publication to Haridoss, et al, and further in view of the U.S. patent application publication to Menon, et al.

Before the analysis of the Examiner's rejection of the claims over the art, it is believed to be advisable to emphasize again the new features of the present invention as defined in claims 1 and 17, the broadest independent claims currently on file.

Claims 1 and 17 define a fuel cell device with a fuel cell unit including at least two fuel cells electrically coupled with one another. A first one of the two fuel cells is provided with first catalytic coatings, and a second one of the two fuel cells is provided with second catalytic coatings. The second catalytic coatings of the second fuel cell are different from the first catalytic coatings of the first fuel cell. The two fuel cells have different quantities of the catalytic coatings.

In other words the quantities of the coatings of the anode and of the cathode of the first cell are different from the quantities of the coatings of the anode and of the cathode of the second cell, correspondingly. None of the catalytic layers included in the first fuel cell correspond to the catalytic layers comprised in the second fuel cell.

The U.S. patent to Kirby applied by the Examiner relates to a fuel cell, comprising different catalytic layers on the cathode and the anode site. The patent to Kirby however does not disclose a combination of two different fuel cells. This reference teaches that the cathode side and the anode side of a single fuel cell have to be provided with different catalytic layers. This has nothing to do with the applicant's invention as defined in claims 1 and 17.

The U.S. patent to Yi, et al discloses a fuel cell stack which comprises several fuel cells. This reference shows that it is very difficult to

provide all necessary fluids to a fuel cell under stoichiometric conditions. Furthermore, this reference discloses that some components of this system can be used to provide fluids to all fuel cells of this system in parallel. For example, the patent to Yi, et al discloses an air-blower assembly, in which its air-blower power is derived as a function of the current density of the fuel stack as a whole. It is therefore impossible to address single fuel cells with an individual air flow. If in the fuel cell stack disclosed in the patent to Yi, et al fuel cells with different catalytic layers were provided, this would result in different current densities, and it would be impossible to provide all fuel cells with a common air-blower whereby its power is derived as a function of the total current total fuel cells. It is therefore believed to be clear that the patent to Yi does not provide any motivation to combine different fuel cells to a fuel cell stack.

The U.S. patent application publication to Haridoss, et al discloses a fuel cell system, comprising several fuel cells. This reference also discloses that the electrode composition of these fuel cells can include between 75-95 weight percent of a catalyst. In other words the Haridoss reference discloses an electrode compositions which can vary in a certain range. However, this reference does disclose and does not provide any hint or suggestion for combining fuel cells comprising different electrodes with different catalytic layers to a fuel cell stack.

In accordance with the teaching of the Haridoss reference, a person of ordinary skill in the art would combine a first set of fuel cells with a catalytic content of for example 75 weight percent in the electrode composition to a fuel cell stack, or combine a second set of fuel cells with a catalytic content of for example 95% in the electrode composition to a fuel cell stack. However, there are no hint or suggestion for mixing these fuel cells having different electrode compositions. Thus, this reference also does not contain any hint or suggestion for the new features of the present invention as defined in claims 1 and 17.

The original claims were rejected over the combination of the Yi, et al reference with the Kirby reference and Yi, et al reference with the Harridos, et al reference. It is believed to be clear that none of these references provide any hint or suggestion for the new features of the present invention defined in claims 1 and 17, as explained herein above. There is nothing in the references which would suggest or teach a desirability of the combination proposed by the Examiner, to arrive at the new features of the present invention. In connection with this, it is believed to be advisable to cite the decision in ACS Hosp. Sys., Inc. v. Montfiore Hosp., 221 USPQ 929, 932, 933 (Fed. Cir. 1984) in which it was stated:

"Obviousness can not be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or

suggestion supporting the combination. In accordance with section 103, teachings of references can be combined only if there is some suggestion or incentive to do so."

Definitely, the references do not contain any suggestions or incentives for combining them with one another.

It is further respectfully submitted that if the references were combined for some unknown reasons, hypothetical constructions produced from such a combination would not contain the new features of the present invention as defined in claims 1 and 17. Instead, the references have to be fundamentally modified by including into them the new features of the present invention, which are not disclosed in the references, but were first proposed by the applicants. However, it is known that in order to arrive at a claimed invention, by modifying the references the cited art must itself contain a suggestion for such a modification.

This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, held in its decision in re Randol and Redford (165 USPQ 586) that

Prior patents are references only for what they clearly disclose or suggest; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

In view of the above presented remarks and amendments, it is believed that claims 1 and 17, the broadest claims on file, should be considered

as patentably distinguishing over the above discussed references and should be allowed.

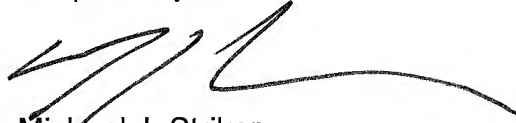
As for the other references applied by the Examiner, they also do not teach the new features of the present invention, and therefore it is believed that any discussions of these references should be superfluous.

The dependent claims depend on claim 1, they share its allowable features, and therefore it is respectfully submitted that they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance; he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'MJS', with a long horizontal flourish extending to the right.

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